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**DEPARTMENT OF ENERGY**

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**RESOLUTION**

The 10<sup>th</sup> August, 2015

**Subject: Jharkhand State Solar Power Policy 2015**

**Preamble:**

**No. – 2007--**In order to reduce the dependence on fossil fuel based generation, it is essential to explore all possible alternative sources of generation. Under these circumstances, the generation based on renewable energy resources as well as adopting energy efficiency measures to fulfill the electricity requirement shall play a significant role in meeting our future demands of electricity.

To achieve a sustainable development route that provides for advancement in economic as well as environmental objectives, the Government of Jharkhand is determined in taking necessary steps to encourage the generation based on renewable energy resources. The State has high solar insolation around 300 days of clear sun and offers good sites having potential of more than 4.5 to 5.5 kWh/m<sup>2</sup>/day, which the State intends to harness to support the energy requirements of the State.

Due to the decline in the upfront capital cost, the cost of generation of solar power generation plant has become competitive with many conventional power generation technologies. It is also witnessed that the consumer tariff in various segments have achieved parity with the cost of generation of electricity generated from solar power plants and consequently, the decentralised mode for generation of electricity has increasingly been accepted by all set of stakeholders. Further with the technological advancement, solar energy applications have been widely accepted in off-grid mode of electricity generation as well as in thermal applications.

Accordingly, the Government of Jharkhand to introduces this policy to harness the incident solar insolation on the State and to realise the potential benefit to the environment by deployment of solar plants.

### **1. Title of the Policy:**

The policy shall be known as the **Jharkhand State Solar Power Policy 2015.**

### **2. Objectives:**

The objectives of the Policy are as follows:

- a) To encourage participation of Private Sector to set up Solar Power based projects in the State & increase solar power generation to 2650 MW by the year 2020 in a phased manner.
- b) To build a favourable atmosphere for setting up Solar Power projects.
- c) Ensure energy security of the State by stable and non-polluting means.
- d) To promote local manufacturing facilities which will generate employment in the State.

### **3. Legislative Framework for Policy:**

Several provisions under the Electricity Act, 2003 mandate the Jharkhand State Electricity Regulatory Commission and the Government to take necessary steps for promotion of renewable energy. Section 108 of the Act mandates the Government to give directions to the State Commission in the matter of Policy involving public interest. Accordingly, the State Government in exercise of its powers formulates this policy.

### **4. Operative Period:**

This policy shall come into operation with effect from the date of notification and shall remain applicable till such time a new policy is issued.

Solar Power Projects (SPP) that are commissioned during the operative period shall be eligible for the incentives declared under this policy, for a period of ten (10) years from the date of commissioning - unless otherwise the period is specifically mentioned for any incentive.

### **5. Eligible Developer:**

All registered companies/firms/societies, Government entities, consumers of Discom(s) and individuals will be eligible for setting up of Solar Power Projects within the State for sale of electricity/captive use, in accordance with the Electricity Act-2003, as amended from time to time.

### **6. Minimum Target:**

The State shall strive to achieve the objectives of the policy and aim at implementing the following targets in 5 years period:

Description	Unit	FY 2015- 16	FY 2016- 17	FY 2017- 18	FY 2018- 19	FY 2019- 20	Total
Solar Photovoltaic Power Plants*	MW	100	250	500	500	750	2100
Rooftop Solar Power Plants**	MW	25	50	100	125	200	500
Solar Thermal Power Plants	MW	5	10	10	10	15	50

\*The minimum size of the solar PV power plant at single location shall be 1 MW.

\*\*The minimum size of the Rooftop solar PV power plant at single location shall be 1 KW.

## 7. Categories of Solar Power Plants:

### I: Development of Solar Power Plants for Sale of Electricity to the Distribution Licensee:

To support compliance of the renewable (solar) purchase obligation (RPO) target announced by the Jharkhand State Electricity Regulatory Commission, the State Government shall promote development of solar power plants for sale of electricity generated to the State Distribution Licensee. The Nodal Agency shall formulate suitable provisions for the allotment of capacity to the project developers.

State shall have first right of refusal for upto 50 percent of the power generated by the project or Renewable Power Obligation (RPO) of the Distribution Licensee, whichever is higher.

The Jharkhand State Electricity Regulatory Commission shall announce separate feed-in tariff applicable for utility scale solar photovoltaic power plants and utility scale solar thermal power plants, after considering the State specific parameters. The feed-in tariff shall act as a ceiling limit in the competitive bidding process organized by the Nodal Agency. Capacities shall be defined AC and not in DC. Power Purchase Agreement (PPA) shall be done between the State Discoms and the successful bidder for a period of 25 years or life of the project, whichever is earlier.

For larger investments including FDI projects of capacity 500 MW and above, government land, subject to availability, shall be made available on priority by the State Government on long term lease basis. For such projects, the performance bank guarantee shall be Rs. 10 lakhs per megawatt and the same will be released only after scheduled commissioning of the plant. The tariff for such projects shall be decided by the JSERC.

### II: Development of Solar Power Plants for Sale of Electricity to any Person other than the Distribution Licensee:

The State shall promote development of solar power plants for sale of electricity to any entity other than the Distribution Licensee. The Nodal Agency shall extend its support for implementation of solar power plants under this segment.

The Jharkhand State Electricity Regulatory Commission shall announce suitable provisions for the development of the plants under this category.

### **III: Development of Solar Parks:**

The State shall promote development of solar park on non-productive Government land or any other land falling within the area of solar park. State Government will identify land for the development of Solar Parks. The State Electricity Regulatory Commission shall develop suitable framework to ensure successful development of Solar Parks in the State. The State Government, under this Policy, will help facilitate in building up the necessary infrastructure like power evacuation infrastructure, water requirements and internal road etc. Solar Park will consist of various zones viz. Solar Power Projects, Manufacturing Zones, R&D and training centres. The state will extend all facilities and fiscal incentives provided by central Govt. / National Solar Mission to the Manufacturers and Power Project Developers in Solar Park.

Special Purpose Vehicle (SPV) under the Nodal Agency will be established for development of infrastructure and management of Solar Park. The SPV will formulate Policy and Rules in respect of land allotment, sharing of development cost by the solar power producers and manufacturers. The SPV will develop the initial infrastructure from the funds allocated by GoI and GoJ, which will be subsequently recovered from the solar power producers whose projects are located in Solar Parks by levying development charges.

### **IV: Development of Solar Power Plants under Renewable Energy Certificate Mechanism:**

The State Government shall promote the development of solar power plants under the renewable energy certificate mechanism specified by the Jharkhand State Electricity Regulatory Commission. The Nodal Agency shall extend its support for the accreditation of the power plant and recommending its registration with the Central Agency in a time bound manner. In carrying out its role, the Nodal Agency shall be guided by any directions given to it by the Jharkhand State Electricity Regulatory Commission for the implementation of the framework, from time to time.

### **V: Development of Solar Power Plants on Canals:**

The State shall promote development of Solar Power Plants on the Canal Top and on the banks of canal, after undertaking its technical feasibility. In addition, the Nodal Agency shall coordinate with the Ministry of New and Renewable Energy for implementation of its scheme announced from time to time.

### **VI: Development of Solar Power Plants under the schemes announced by Government of India:**

The State Government shall endeavor to extend its cooperation to the project developers participating in the schemes announced by the Ministry of New and Renewable Energy, Govt. of India, from time to time. The Nodal Agency shall actively participate in the discussions/public

consultations and arrange & submit the recommendations, in timely manner, to the Ministry of New and Renewable Energy, required for finalization of such schemes. The Jharkhand State Electricity Regulatory Commission shall also announce suitable framework for the implementation of such schemes, if required, in a time bound manner.

**VII: Development of Solar Power Plants under any other scheme of State Government:**

The State shall promote development of Solar Power Plants under any other scheme announced by the State Government, from time to time.

**VIII. Development of Grid Connected Rooftop Solar Photovoltaic Power Plants**

**8. Implementation Plan for Grid Connected Rooftop Solar Photovoltaic Power Plants:**

The State shall encourage implementation of the minimum target specified for rooftop solar photovoltaic power plants, connected with electricity system, under below mentioned segments: -

**I: Generation and Sale of Electricity to the Distribution Licensee of the State:**

In order to reap the benefits and to enable obligated entities complying with the solar purchase obligation targets specified by the Jharkhand State Electricity Regulatory Commission, the State would encourage deploying rooftop solar photovoltaic power plant for generation and sale of electricity to the Distribution Licensee of the State.

The Jharkhand State Electricity Regulatory Commission shall announce separate feed-in tariff applicable to rooftop solar photovoltaic power plants, after considering the State specific parameters.

**II: Generation and Sale of Electricity to a Person/entity other than Distribution Licensee:**

The State shall promote implementation of solar power plant and sale of electricity generated to a Person/entity other than the Distribution Licensee. The Nodal Agency shall extend its support for implementation of solar power plants under this segment.

The Jharkhand State Electricity Regulatory Commission shall announce suitable provisions for the development of the plants under this category.

**III: Generation, Captive Consumption and injection of surplus Electricity under Net Energy Metering Mechanism:**

The State shall promote development of rooftop solar photovoltaic power plants implemented by any Person/entity for meeting its own electricity requirements and injecting surplus electricity into the distribution system.

A suitable framework for the implementation of net energy metering mechanism shall be specified by the Jharkhand State Electricity Regulatory Commission for the development of plants to promote captive consumption of electricity.

The State shall encourage implementation of grid interactive rooftop solar photovoltaic power plants as under:

**Government/Public Institutions:**

The State Government shall promote deployment of rooftop solar photovoltaic power plants for captive/self-consumption on the offices of the government organizations, government owned or aided hospitals, research institutions, educational institutions, govt. residences/colonies, hostels & training institutions, libraries, rest houses, holiday homes, inspection houses etc.

**Private Institutions:**

The State Government shall promote deployment of rooftop solar photovoltaic power plants on the premises of residential buildings/colonies/townships, societies, hotels, private guest houses, private transit hostels, private students' hostels, marriage houses, commercial establishments, cinema & theatres, private hospitals, private ware-houses, industries etc. All the aforementioned institutions shall be encouraged to implement rooftop solar photovoltaic power plant, of suitable capacity, on the roof of their premises/area, generate the electricity for sale to the distribution licensee and/or for their self-consumption.

The State government shall provide suitable incentives to promote large scale adoption of grid interactive rooftop solar power generation by the residential consumers.

The State Government shall encourage the local urban bodies for making suitable amendments in the existing building bye-laws to encourage rooftop solar photovoltaic power plants. No Distribution losses and charges will be collected from group/ society / individuals by the DISCOMs. Eligible Developers are allowed to avail the relevant subsidies & incentives from MNRE under JNNSM scheme. The eligible subsidy for net metering systems may be processed through JREDA. The sanction & release of the subsidy will be as per the guidelines issued by MNRE from time to time.

The modalities for implementing the rooftop policy including metering, billing, settlement, payment & technical aspects shall be issued by JBVNL in consultation with JREDA within 30 days from the date of issue of this policy. All approvals / clearances shall be disposed by respective DISCOMs within 14 days from the date of application. The metering facility will be extended for all eligible developers who intend to setup solar Photovoltaic power plant in their premises. Eligible Developers who wish to avail the metering facility will have to apply to DISCOMs on-line. The applicable tariff for solar rooftop projects shall be determined by JSERC.

**9. Implementation Plan for Decentralized & Off-Grid Solar Applications:**

The Government will also promote decentralized and off grid solar applications, to meet the requirements of electricity and thermal energy, as per the guidelines issued by Ministry of New and Renewable Energy, Govt. of India.

To comply with the minimum targets envisaged under the policy, JREDA shall identify priority areas/sectors for deployment of decentralized and off grid solar photovoltaic power plants including solar photovoltaic standalone power plants, solar home lighting systems, street lighting system, solar pumps etc. and take necessary action, in time bound manner, to implement the off grid solar systems in those priority areas/sectors with the approval of the Government.

Further, for the utilization of solar energy for thermal applications, JREDA shall take necessary action to proliferate its application in feasible sectors including residential (solar water heaters, solar cookers, in-door air heating etc.), commercial & industrial sector (solar cooling, solar air dryers, large scale solar water heaters, large scale solar cooking utilizing solar concentrator technology, process heating etc.).

#### **10. Incentives:**

The following incentives shall be available to the solar power plants which are implemented and commissioned during the Operative Period of the policy:

##### **A) Exemption from the payment of Electricity Duty:**

Electricity duty shall be exempted for 10 years from date of commissioning provided the source of power is from Solar Power Projects setup within the State.

##### **B) Deemed Industry Status:**

All solar power plants shall be treated as 'industry' under the schemes administered by the prevailing Industrial Policy of Jharkhand and incentives available to industrial units shall be available to the solar power plants developers. Nodal Agency shall recommend for sanctions and disbursement of the subsidy/incentives contained in Jharkhand Industrial Policy. For subsidy/incentives flowing out from this policy not covered under the State Industrial Policy, a committee would be constituted by the Energy Department.

In case of any inconsistency between the prevailing Industrial Policy of Jharkhand and Jharkhand State Solar Power Policy, the provisions under the Jharkhand State Solar Power Policy shall prevail.

##### **C) Open Access:**

Intra-state Open Access clearance for the whole tenure of the project or 25 years whichever is earlier will be granted.

##### **D) Exemption from payment of Conversion Charges:**

The residential consumers opting for implementation of rooftop solar photovoltaic power plant under sale to grid shall be exempted from conversion of house tax to commercial tax.

##### **E) Exemption from the payment of VAT:**

The equipment purchased for installation of solar plants shall be exempted from payment of VAT subject to transition in GST regime in future.

##### **F) Wheeling Charges:**

Transmission and Distribution charges for wheeling of power generated from Solar Power Projects through State Transcos/Discoms shall be as per wheeling charges specified by JSERC for wheeling within the state. The Govt. of Jharkhand will provide a grant of 4% of wheeling charges in terms of energy injected and the balance wheeling charges shall be borne by the project developer.

##### **G) Cross Subsidy Surcharge:**

Cross subsidy surcharge shall be exempted for third party sale, provided the source of power is from Solar Power Projects setup within the State.

**H) Banking:**

Banking of 100% of energy shall be permitted for all Captive and Open Access/ Scheduled Consumers during all 12 months of the year. Banking charges shall be adjusted in kind @ 2% of the energy delivered at the point of drawal. The banking year shall be from April to March.

Drawals from banked energy shall not be permitted during five (5) month period from 1st April to 30<sup>th</sup> June and 1<sup>st</sup> February to 31<sup>st</sup> March of each financial year. In addition, drawls of banked energy during the Time of the Day (ToD) applicable during the peak hours, as specified in the respective Retail Supply Tariff Order, shall also not be permitted throughout the year. However, the provisions on banking pertaining to drawal restrictions shall be reviewed based on the power supply position in the State.

Energy injected into the grid from date of synchronization to Commercial Operation Date (COD) will be considered as deemed energy banking.

The unutilized banked energy shall be considered as deemed purchase by Discom(s) at the pooled power purchase cost as determined by the JSERC for the applicable year. Energy settlement shall be done on monthly basis.

**I) Height of the module structure:**

The height of the module structure carrying rooftop solar panels, in addition to the building height, shall not be counted towards total height of the building under the building bye laws.

**J) Contract Demand Reduction:**

Scheduled Consumers shall avail reduction in Contract Demand for a period of five (5) years from the date of commissioning of the project. Scheduled consumers shall have the same meaning as defined in regulations issued by JSERC and amended from time to time.

**K) Third Party Sale:**

Third Party sale within or outside the State of Jharkhand will be allowed as per Electricity Act 2003 and the Orders and /or Regulations issued by JSERC from time to time.

**L) Clean Development Mechanism benefits:**

CDM benefits to the solar power project Developers / Investors shall be as per the provisions specified by JSERC.

**M) Pollution Clearance:**

Solar PV Power Projects will be exempted from obtaining any NOC/consent for establishment, consent to operate and public hearing under the pollution control laws from Jharkhand State Pollution Control Board.

**N) Distribution Losses:**

Distribution losses shall be exempted only for solar power projects injecting at 33 KV or below irrespective of voltage level of the delivery point within the DISCOMs.



**O) Renewable Energy Certificate (REC):**

All projects developed with the above incentives will be eligible for REC benefits subject to applicable regulations/orders of the appropriate commission. Deemed injection into the grid for in-house solar generation will also be eligible for REC benefits subject to applicable guidelines.

**P) Grid Connectivity and Evacuation facility:**

The power generated from a Solar Power Project shall be injected at an appropriate voltage at the sub-station and/or interconnection point of the State Transco/Discom(s). Transco/Discom shall bear the entire cost of construction of power evacuation facilities from the project's generator switchyard to the interconnection point (injection point), up to a maximum length of 10 KM. State govt. shall reimburse such cost to the concerned Transco/Discom provided the project capacity is 2 MW or more. Beyond 10 KM, the cost shall be borne by the project developer.

The Eligible Developer shall abide by the orders, rules, regulations and terms and conditions as approved by the Regulatory Commission from time to time for operation of Solar Power Projects, power evacuation, transmission and wheeling of energy.

State Transco /Discom(s) will dispose the proposals for the technical feasibility for evacuation within 14 days from the date of receipt of application. Any upstream system strengthening requirement & maintenance of such power evacuation infrastructure shall be borne by State Transco/ Discom(s) on a priority basis.

**Q) Deemed Public Private Partnership (PPP) Status:**

Deemed PPP status shall be provided for projects coming up under category (1) of para (7) of this policy.

**R) Non Agriculture Status:**

Deemed Non-Agricultural (NA) status for the land where Solar Power Projects will be accorded, on payment of applicable statutory fees.

**S) Must run status:**

Injection from Solar Power Projects shall be considered to be deemed scheduled.

**T) Land:**

**(a) Land requirement:** Wherever any Government assistance for land acquisition/ Government land transfer is required for setting up of Solar Power Plant in Jharkhand, the scale for land use will be as per the latest land efficient Solar Photovoltaic/Solar Thermal technology. The scale for land use shall be reviewed annually to factor in the technological developments in the solar power sector.

It will be the responsibility of the project developer to acquire the land required for the project.

State govt. shall also identify and provide land for developing of solar power projects on competitive tariff bidding basis. Government land in the 'Industrial

areas/zones' of the State shall also be provided on priority for setting up of solar power plants, solar manufacturing industry, solar parks. However, State government shall, subject to availability, provide government land on priority and on long term lease basis for solar power plants of capacity 500 MW or more at JSERC power tariff. The govt. shall introduce a land bank scheme to facilitate quick availability of land for such projects. A GIS based land information & management system will be developed. There shall be 100% waiver on land use conversion charges/fees. The concerned department shall give land use conversion permission within 15 days of the project registration.

**(b) Stamp duty exemption on purchase of private land:** 100% exemption from payment of fee and stamp duty for registration of lease deed for allotment of govt. land and on registration of purchase of private land.

**U) Timely completion & commissioning of project:**

If the project is completed and commissioned within the scheduled period, then such project developers will be exempted from paying electricity duty and banking charges for 25 years or the project life whichever is earlier.

**V) Deemed approvals:**

Govt. shall issue certificate whenever required.

**W) Priority industry:**

Solar industry shall be declared as a priority industry.

**11. Role of Nodal Agency:**

Jharkhand Renewable Energy Development Agency (JREDA) shall be the Nodal Agency for the State of Jharkhand.

The Nodal Agency and or the designated offices under the Nodal Agency shall be responsible for following activities: -

a) Announcement of Scheme:

The Nodal Agency shall bring out a comprehensive scheme to implement the targets specified under the policy. The scheme should elaborate the appropriate process for invitation of bids/applications, incentives and central financial assistance, if any, targets, implementation mechanisms etc.

b) Allotment of the Solar Power Capacities:

The Nodal Agency shall, from time to time, undertake the process for allotment of solar power capacities to the project developers. The Nodal Agency in consultation with the related stakeholders shall announce the process for allotment of solar power capacities.

c) Facilitation in Development of Power Plant:

The Nodal Agency shall, facilitate the project developers in arranging right of way, supply of water, obtaining necessary clearances and approvals from different Government departments.

d) Facilitate in obtaining revenue land wherever it is required.

e) Support in establishing Protocols/Procedures for easy adoption of Solar Power:

The Nodal Agency shall also support the distribution licensee in developing the protocols and procedures for metering, connectivity with the electricity system, and power purchase agreements etc. for easy adoption of rooftop solar photovoltaic power plants by the stakeholders.

f) Identification of Sites for Deployment of Rooftop Solar Photovoltaic Power Plants:

The Nodal Agency shall facilitate the project developers in identifying the technically feasible sites/roofs under jurisdiction of the State Government for deployment of rooftop solar photovoltaic and other small scale solar power projects. The Nodal Agency may charge nominal fee for extending its services. The Nodal Agency shall also encourage deployment of solar power projects on sites/roofs under jurisdiction of private institutions/buildings.

g) Support in availing the Subsidy:

The Nodal Agency shall facilitate the solar plant developer(s) to avail the subsidy available from Central and/or State Government.

h) Amendment in Bye-Laws:

The Nodal Agency shall coordinate with the Housing and Urban Planning Department, identify and recommend necessary amendments in the Bye-Laws to facilitate extensive adoption of rooftop solar photovoltaic power plants.

i) Capacity Building & Awareness:

The Nodal Agency shall organize Capacity Building & Training Sessions for participation by the segment stakeholders. The Nodal Agency shall also take necessary steps in creating awareness among the citizens of the State.

j) Strategy for the development of Solar Segment:

The Nodal Agency shall arrange to formulate a strategy for the overall development of solar segment in the State with special emphasis on creating market for service providers, small and medium enterprises etc. The report shall be submitted for the consideration of the State Government on yearly basis. The Nodal Agency shall also ensure accessibility of quality equipment as per standards specified by appropriate agencies including Ministry of New and Renewable Energy.

k) Coordination with MNRE for Technical Specification:

The State shall follow the technical specifications and standards as specified by the Ministry of New and Renewable Energy, from time to time. The Nodal Agency shall provide its inputs to the Ministry of New and Renewable Energy for specifying standard new or amending existing technical specifications for different component of solar plant (photovoltaic and thermal).

l) Rate Contracts for Solar based applications:

JREDA will utilize its domain expertise of solar from time to time for fixing up Rate Contracts for all solar related applications through open bidding process and circulate the list of empanelled vendors along

with the Rate Contract as well as the commercial and technical aspects. This will save the government departments from repetitive process of purchase/ procurement and the Government offices will be free to select any vendor of their choice from empanelled list. This will expedite the solarisation process in Government buildings.

m) Project clearance:

All approvals/clearances shall be disposed within 30 days from the date of registration for category II & IV projects and 30 days from the date of finalization of bidding process for category I project.

All necessary amendments in the concerned Acts of the State shall be notified within 60 days from the date of announcement of this policy. The modalities for operating the single window clearance mechanism shall be developed within 60 days from the date of issue of this policy. Registration work shall commence after 60 days of announcement of this policy.

## **12. Role of the Jharkhand State Electricity Regulatory Commission:**

The Jharkhand State Electricity Regulatory Commission shall on priority basis, notify appropriate regulatory framework for the promotion and deployment of utility scale solar power plants and grid connected rooftop solar photovoltaic power plants in the State. The regulatory framework shall include the enabling provisions for the implementation of the policy.

The JSERC shall have exclusive jurisdiction on those provisions of this policy which are within its regulatory mandate for management of the Electricity Act, 2003, especially regarding notification of Electricity Tariffs for sale for power, power purchase agreements, wheeling, banking, distribution, transmission loss charges etc. Similarly, the JSERC has jurisdiction under the provisions of the Electricity Act, 2003 as regards promotion of non- conventional energy sources, facilities for transmission of energy and sharing of purchase of power amongst Transmission Licensee/ Distribution Licensee etc. Compliances of Guidelines, Directives, Regulations, Rules etc. issued by the JSERC issued from time to time regarding these shall be binding on all concerned parties.

In the event of any dispute in the interpretation of this policy or any terms and conditions of agreement/clauses between the Developer and any state govt. department or Transmission Licensee/ Distribution Licensee, the same shall be referred to the State Government or the JSERC as the case may be.

## **13. Role of State Transmission & Distribution Licensee:**

The State Electricity Transmission and Distribution Licensees shall extend their support and guidance to the eligible entities in installing solar power plants and their connectivity with their electricity system. They shall comply with the regulatory framework specified by the Jharkhand State Electricity Regulatory Commission and provisions contained in this Policy. Power Purchase Agreement (PPA) shall be done by Discom as per the regulatory framework specified by JSERC.

## **14. Registration:**

a) Jharkhand Renewable Energy Development Agency (JREDA), Government of Jharkhand shall be the nodal agency for registration and post development activities for the development of the Solar Power Projects in the state. The companies who have signed the MoU with Government of Jharkhand are required to get registration as per provisions of this clause. The

Developers/Investor shall submit the following documents for registration:

- i) Application in the given format;
  - ii) Certified copy of Memorandum & Articles of Association of the company/ Certified copy of the bye- laws of the registered society;
  - iii) Certified copy of partnership deed;
  - iv) Certified copy of the audited balance sheet of last 3 years/Net worth, turn over and Personal Bank Guarantee.
- b) In case the project is found to be eligible after evaluation, a demand note for depositing the requisite processing fee will be issued within fifteen (15) days and such Developers will be required to deposit the processing fee (non-refundable) of Rs. One lac per MW and get the project registered within a period of fifteen (15) days from the issuance of the demand note; and
- c) In case of failure to submit the processing fee within the stipulated timeline (15 days), the application for registration of the project by such Developer shall be considered cancelled.

#### **15. Post Registration activity:**

The following documents shall be submitted by the Project Developer:-

- i) Detailed Project Report (DPR);
- ii) Land related document (tagged/identified project site for the projects proposed;
- iii) CPM/ PERT chart (for implementation of the proposed project)
- iv) Geo-referenced map for the PV power project location, also showing the grid location.
- v) Water allocation order on the basis of water availability at the project site (if applicable) and geo-referenced map showing also the grid location for the solar thermal project.

#### **16. Security Deposit:**

- (a) For projects for sale of power to Discoms of Jharkhand, security deposit will be governed by provisions in the bid document and PPA.
- (b) For plants under REC mechanism, captive use, third party sale/sale to other state through Open Access, the developer shall have to deposit security amount of Rs. 30.00 lakh/MW in the form of bank guarantee within one month from the date of issue of in-principle clearance/approval of the project by JREDA, failing which the approval of the project shall automatically stand cancelled.
- (c) Security amount deposited shall not be convertible or transferable and shall be refunded within 30 days after receipt of written request from the developer after commissioning of the project.
- (d) In case the developer fails to commission the power plant within the time schedule, the security deposit shall be forfeited.

#### **17. Minimum equity to be held by the developer:**

- (i) Grid connected solar project developer shall provide the information about the promoters and their shareholding in the company to JREDA indicating the controlling shareholding.
- (ii) No change in the shareholding in the company developing the project shall be permitted from the date of submitting the application till execution of PPA.
- (iii) This shall not be applicable to the Solar Power Project developed by the public limited companies.
- (iv) After execution of PAA the controlling shareholding (at least 26% of the voting rights) in the Company developing the project shall be maintained up to a period

of 3 years after commencement of commissioning of the project.

- (v) In case the minimum equity for two Consecutive quarter falls below 26% after the execution of PPA, the accreditation of the project with JREDA will be cancelled and the PPA with the power utilities will stand terminated.
- (vi) Thereafter any charge may be undertaken only with the prior approval of JREDA.

### 18. Performance Guarantee:

a) **Projects for sale of electricity to the Distribution Licensee:** As per the guidelines specified in the qualification/ selection document issued by JREDA for competitive bidding.

b) **For other category projects availing policy benefits:**

The Developer shall submit Performance Bank Guarantee for projects at the rate of Rs. 5.0 Lac/MW to Jharkhand Renewable Energy Development Agency (JREDA). The Bank Guarantee shall be valid for a period of twenty four (24) months for Solar PV projects and for a period of forty (40) months for Solar thermal projects respectively.

- i. The Bank Guarantee shall be released in stages to the project Developer after evaluating the achievements and project benchmarks.
- ii. In case the project Developer fails to achieve the desired progress and the project is cancelled, the balance remaining Bank Guarantee at the time of cancellation of the project shall be forfeited and en-cashed as penalty. The decision of JREDA shall be final in this regard.
- iii. In case the project cannot be set up for want of an approval from the State or the Central Government, the performance guarantee shall be released. The decision of JREDA shall be final in this regard.

### 19. Administrative Approvals:

Application received as per the provisions shall be examined and accorded approval, if found acceptable by the Govt. of Jharkhand within a period of thirty (30) days from the date of registration of the project for category II & IV projects and 30 days from the date of finalization of bidding process for category I project.

### 20. Post Approval Activities and commissioning of the SPP:

- a. **Projects for sale of electricity to the Distribution Licensee:** Solar projects under this category will be required to strictly adhere to the timelines as specified in the qualification / bid document issued by JREDA, Govt. of Jharkhand.
- b. **For other category projects availing policy benefits:** The project must be commissioned within the timelines mentioned below from the date of the administrative approval. Monitoring of progress of the project shall be done based on the criteria mentioned below

S No.	Benchmark	Timeline (from zero day)		Percentage refund of performance guarantee (%)
		Solar PV	Solar Thermal	
1	Date of issue of	Day 0	Day 0	--

	administrative approval			
2	Letter of land possession/land use permission/allotment	3 months	3 months	10% (within 15 days of the submission of proof)
3	Power Purchase Agreement	5 months	5 months	20% (within 15 days of the submission of proof)
4	Financial closure	11 months	11 months	30% (within 15 days of the submission of proof)
5	Project Commissioning	17 months	24 months	40% (after 3 months of successful operation from the date of project commissioning)

## 21. Migration of Solar Power Projects:

Such companies, who have signed MoU with Government of Jharkhand, before the notification of this policy shall be treated at par with the new projects.

## 22. Metering Arrangement:

The metering arrangement should comply Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006, Central Electricity Authority (Installation and Operation of Meters) Amendment Regulations, 2010 and Central Electricity Authority (Installation and Operation of Meters) Amendment Regulations, 2014, as applicable.

Metering equipment, as may be stipulated by Jharkhand Bijli Vitran Nigam Ltd. (JBVNL) or by respective Discoms, shall be installed at the interconnection point which shall be line isolator of outgoing feeder on HV side of the pooling substation. Developers will install metering equipments at their own cost as per specifications and provisions of JSERC Regulations on metering. All officials of the respective Distribution Company authorized for the purpose shall be allowed access by the Developer to inspect the same.

## 23. Tariff:

- a. Projects for sale of electricity to the Distribution Licensee:** The Jharkhand State Electricity Regulatory Commission shall announce separate feed-in tariff applicable for utility scale solar photovoltaic power plants and utility scale solar thermal power plants, after considering the State specific parameters.

Where the land for the solar power plant is provided by the government, the power tariff and capacity shall be decided on the basis of reverse competitive bidding with reference to the levelised feed-in-tariff announced by Jharkhand State Energy Regulatory Commission (JSERC). The success of the tariff determination on the basis of reverse competitive bidding shall be reviewed after one year of announcement of this policy.

For projects of capacity 500 MW or more, the power tariff shall be the levelised feed in tariff announced by Jharkhand State Electricity Regulatory Commission.

Where the land for the solar power plant is arranged by the project developer himself/herself, the power tariff for the approved capacity shall be decided by Jharkhand State Energy Regulatory Commission (JSERC).

- b. Projects for Sale of Electricity to any Person other than the Distribution Licensee:** In case of third party sale/captive use/sale to other states other

than the distribution licensee, the Power Purchase Agreement will be executed between the Power Producer and the Procurer on mutually agreed rates.

In such cases, a separate Agreement will be executed with Jharkhand Bijli Vitran Nigam Ltd. (JBVNL) for wheeling and banking of power.

**c. Projects for sale of power under Renewable Energy Certificate Mechanism:** In case of solar power projects established under renewable energy certificate mechanism, the Power Purchase Agreement as required, will be executed between solar power producers and the Procurer as per the Regulations/Orders of CERC and JSERC issued from time to time in this regard.

**d. Projects for sale of power under the schemes announced by Government of India:** In such cases, the Power Purchase Agreement will be executed between the solar power producer and the Procurer and/or JBVNL as per Guidelines of MNRE, Govt. Of India.

#### **24. Procedure for Interconnectivity with the Electricity System:**

The procedure for interconnectivity of solar power plant with the electricity system of the licensee shall be in accordance with the provisions laid by licensee and approved by the Jharkhand State Electricity Regulatory Commission. The licensee within one (1) month, from the date of publication of this policy under official gazette, shall establish the procedure for interconnectivity of solar power plants its electricity system.

#### **25. Financial Arrangement & Support:**

The following financial arrangements shall be available for the promotion of solar power plant,

##### **A) Through Private Investment:**

State Government shall attract private investments for installation of solar plants. The Nodal Agency shall facilitate and provide clearances and approvals from concerned departments.

##### **B) Budgetary Support:**

The Nodal Agency shall undertake detailed assessment of the support required for encouraging implementation of targets identified under this policy for implementation of solar plants and submit the fund requirements for consideration of the Government for budgetary support.

##### **C) Creation of Green Fund:**

The State Government shall devise creation of a Green Fund through imposition of suitable cess on the consumption of electricity. The fund so created shall be utilized for organizing capacity building and training programme, creating awareness, offsetting the upfront capital cost, interest subvention through Banks and any other aspect deemed necessary for the easy adoption of solar plants in the State.

#### **26. Monitoring of Parameters:**

All solar power plant developers reaping benefit under this policy shall need to install equipment to monitor solar irradiance, wind speed, ambient air temperature, and electricity generated and injected into the electricity system or self-consumed from such solar power plant. The solar thermal plant developers shall need to install equipment to monitor solar insolation, thermal heat generated and related parameters. The monitoring report shall be submitted to the Nodal Agency on 1<sup>st</sup> of every calendar month for the useful life of the plant through online mechanism.



The Nodal Agency shall develop necessary infrastructure to record such parameters.

**27. Other Provisions:**

- a. **Fossil fuel usage:** The usage of fossil fuel (coal, gas, lignite, naphtha, diesel, wood etc.) shall not be allowed in the grid connected solar thermal power projects. Hybrid systems shall be allowed as per the guidelines of the Ministry of New and Renewable Energy (MNRE).
- b. **Project Inspection:** Authorized Representatives of Government of Jharkhand not less than the rank of Executive Engineer shall, with prior written intimation, have the right of inspection of the power project to assess the safety of the project. The Developer shall render all requisite help and assistance in facilitating such inspection.
- c. The Developer shall maintain all records regarding capacity, generation, downtime, with relevant constraints etc. and make available all these records to the inspecting authority for inspection.
- d. Once the project is commissioned, the solar power project developer shall be required to submit the monthly and annual generation details duly certified by the concerned distribution/ transmission utility: both in hard copy and in soft copy (online), to the nodal agency, Government of Jharkhand.
- e. **Data bank:** Energy Department, Government of Jharkhand will establish and maintain a technical library, a data bank and/ or information centre to collect and correlate information regarding solar energy sources.
- f. **Reactive Power Charges:** In case of drawl of Reactive Power for the Project, necessary charges shall be payable at the rates prescribed by JSERC.

**28. Solar Power Adoption by big Consumers:**

Solar Power generation/Procurement shall be encouraged and facilitated for commercial consumers with LT industrial connection with more than 50 kVA connected load and for all HT & EHT consumers. This will also include all such entities having scattered operations within the State but whose total energy load is equal to or more than 50 kVA, for example the Telecom Towers. All such consumers shall be required to declare their carbon foot prints twice (1<sup>st</sup> of January and 1<sup>st</sup> of July) every year. Solar power generation/procurement may be achieved by the following mechanisms: -

- a) Captive solar generation with a Discoms certified metering mechanism.
- b) Buying Renewable Energy Certificates (RECs) from any solar power developer in the State of Jharkhand.
- c) Buying solar power from JBVNL at solar tariffs.
- d) Buying solar power from any developer in the State of Jharkhand.

All new domestic buildings having floor area equal to or greater than 3000 sft shall be encouraged and facilitated to have at least 1 kw Solar PV system. In case of Housing Societies, 5% of energy (electrical + thermal applications) usage would be encouraged and facilitated to be met from solar mode, for the common amenities. The Off –grid applications shall be promoted for replacement of diesel based generators sets.

In the potential categories to be notified like star hotels, hospitals, residential complexes with more than 50 kVA total connected load, the use of solar water heating system shall be encouraged.

**29. Solar Manufacturing:**

The Govt. intends to promote solar manufacturing facilities that can develop the solar eco-system and support job creation in the state. The following incentives shall be applicable for new manufacturing facilities and equipments, ancillaries related to solar power projects only.

- i) Priority in allotment of Govt. Land in Solar Parks on long term lease basis
- ii) Exemption from electricity duty as per industrial policy of the state.
- iii) Any other incentives provided in the prevailing Industrial Policy of Jharkhand.

### **30. Establishment of R&D and Training Centers:**

The Govt. intends to promote skill development in the sector of solar manufacturing, solar power project installation, maintenance and research & development in specific application by establishing Energy Research and Management Institute in the state in collaboration with Central Govt. / Private Participation.

### **31. Project approvals & clearances:**

(i) For approvals of projects with capacity up to 50 MW at a single location, a State Level Screening Committee (SLSC) will be constituted by the Government to be chaired by Principal Secretary / Secretary, Energy Department, Govt. of Jharkhand.

(ii) For approval of projects above 50 MW at a single location, a State Level Empowered Committee (SLEC) shall be constituted by the Government under the Chairmanship of Chief Secretary. SLEC shall also oversee, monitor and resolve various issues arising out of this policy including resolving key bottlenecks in implementation of solar power plants, deliberating on aspects to create fund for the development of grid connected rooftop solar photovoltaic power plants, issues regarding facilitation of framework for interconnection with the network of distribution licensee, resolve Inter departmental issue(s) that arise from time to time and any other relevant aspect. It can also co-opt subject matters expert/s, if required.

### **32. Promotion of Renewable Power (Solar Power) at ecotourism destinations in the State:**

The nodal agency shall make efforts to meet this objective.

### **33. Follow up notifications and modalities by the concerned departments, agencies, transco/discoms:**

All concerned departments, organizations, transco/discoms, agencies shall issue necessary follow up notifications and complete all modalities within two months of announcement of this policy to give effect to the provisions of this policy.

**34. Mid-Term Review:**

State Govt. may undertake a mid-term review of this policy after a period of two years or as and when need arises in view of any technological breakthrough or to remove any inconsistency with Electricity Act 2003, rules and regulations made there under or under any Govt. of India policy.

By the order of the Governor of Jharkhand,

**S.K.G. Rahate,**  
Principal Secretary  
Department of Energy  
Government of Jharkhand.

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